

SRI LANKA STANDARD 1227 : 2002
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SPECIFICATION FOR
FRESH BANANAS

SRI LANKA STANDARDS INSTITUTION

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SLS 1227 : 2002

Gr. 5

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SRI LANKA STANDARD SPECIFICATION FOR FRESH BANANAS

FOREWORD

This standard was approved by the Sectoral Committee on Agriculture and Food Products and was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 2002-04-11.

During the formulation of this specification due consideration has been given to the relevant provisions made under the Sri Lanka Food Act No. 26 of 1980. Specific requirements given in this specification, wherever applicable, are in accordance with the relevant regulations. However general provisions made under the Sri Lanka Food Act have not been included in this specification and therefore, the attention of the user of this specification is drawn to the general provisions made in the regulations framed under the Food Act.

In this specification quality grades of the product are categorized based on physical and sensory quality parameters through visual inspection. However, inspection authorities may use cut tests and moisture determination methods to evaluate quality more objectively in case of a necessity.

Guidelines for the determination of a compliance of a lot with the requirements of this standard based on statistical sampling and inspections are given in Appendix A.

For the purpose of deciding whether a particular requirement of this specification is complied with, the final value, observed or calculated, expressing the results of a test or an analysis, shall be rounded off in accordance with CS 102. The number of significant places to be retained in the rounded off value shall be the same as that of the specified value in this specification.

MS 459 : 1976 - Malaysian Standard Specification for Fresh Bananas
Codex STAN 205 : 1997 Codex Standard for Bananas
CNS 2951 N1086 Chinese National Standard for Bananas (*Musa* spp)

1 SCOPE

This specification prescribes the requirements for fresh bananas grown from *Musa* spp of the *Musaceae* family to be supplied fresh to the consumer. Bananas intended for cooking only (plantains) or industrial processing are excluded.

2 REFERENCES

ISO 874 Fresh fruits and vegetables - sampling
CS 102 Presentation of numerical values
SLS 143 Code of practice for general principles of food hygiene
SLS 428 Random sampling methods
SLS 467 Code of practice for labelling of prepackaged food
SLS 910 Limits for pesticide residues in food

3 DEFINITIONS

For the purpose of this specification the following definitions shall apply :

- 3.1 **bananas** : Commercial varieties (cultivars) grown from *Musa* spp of the *musaceae* family to be supplied fresh to the consumer.
- 3.2 **similar varietal characteristics** : A condition where bananas in any lot which are similar in shape, size, colour and taste.
- 3.3 **length** : The length measured along the outside of the curve from the basal end of an individual fruit to the apex.
- 3.4 **finger** : An individual banana fruit.
- 3.5 **hand** : The full complement of fingers found attached to one section of the peduncle.
- 3.6 **cluster** : A sub-division of a hand, containing several fingers.
- 3.7 **mature** : A condition having reached the stage of full development which will ensure a proper completion of the ripening process.
- 3.8 **fully ripe** : A condition where the pulp is soft with a characteristic odour and flavour of banana.
- 3.9 **overripe** : A condition where the pulp is excessively soft or discoloured with off odour and flavour.
- 3.10 **blemishes** : A condition where any extraneously induced superficial spotting and/or pitting on the peel which will not affect the eating quality of the fruit.
- 3.11 **blemished fruit** : A condition where a fruit with more than 5% of its surface area is covered with blemishes.
- 3.12 **bruises** : A condition where any mechanical injury that causes the peel of the individual fruit to become soft and/or discoloured.
- 3.13 **damage** : A condition where any defect or injury which materially affects the appearance and eating quality of the fruit.
- 3.14 **growth crack** : A condition where any break in the peel, and/or flesh, resulting from splitting or tearing.
- 3.15 **reasonably free from growth cracks** - A condition where fruits with growth cracks are not more than 1% by count.

3.16 **clean** : A condition where the fruit is free of dirt, stains, other foreign matter and odours. (Chemical residues for the use of ripening agents)

3.17 **well formed** : A condition where all the fingers are regular in size.

3.18 **fairly well formed** - A condition where all the fingers are fairly regular in size.

4 **GRADES**

Bananas shall be of the following quality grades :

4.1.1 Grade A;

4.1.2 Grade B; and

4.1.3 Grade C.

5 **GENERAL REQUIREMENTS**

5.1.1 Bananas shall be of normal appearance including colour for the variety of *Musa* spp and its hybrids.

5.1.2 Bananas shall be whole, firm, clean and practically free of any visible foreign matter.

5.1.3 Bananas shall be practically free of bruising, pests and damages caused by diseases or any other means.

5.1.4 Bananas shall be with the stalk intact, without bending, with pistils removed and free of malformation or abnormal curvature of the fingers.

5.1.5 Bananas shall be of characteristic smell and free of any foreign smell and/or taste.

5.1.6 Bananas shall not contain pesticide residues in excess of the limits as prescribed in SLS 910.

5.2 **Hygienic requirements**

Bananas shall be handled, stored, distributed under the hygienic conditions in accordance with SLS 143.

5.3 **Finished product**

5.3.1 Bananas shall conform to quality grades as prescribed in Table 1.

TABLE 1 - Quality grades

Grade (1)	Requirement (2)	Tolerance (3)
A	<ol style="list-style-type: none"> 1 Bananas shall be of the similar varietal characteristics, mature, ripe (but not over ripe) well formed and free from growth cracks, damages due to blemishes and bruises. 2 Bananas shall be free from diseases, dead and living insects, fungal contamination and storage disorders. 	Bananas in each sample shall be not more than 10% for grade B by count.
B	<ol style="list-style-type: none"> 1 Bananas shall be of the similar varietal characteristics, mature, ripe (but not over ripe fruit), well-formed and free from growth cracks, damages due to blemishes and bruises that affects the eating quality of fruit. 2 Bananas shall be reasonably free from diseases, dead and living insects, fungal contamination and storage disorders. 	Bananas in each sample shall be not more than 10% for grade C by count.
C	<ol style="list-style-type: none"> 1 Bananas shall be of the similar varietal characteristics, mature, ripe (but not over ripe) fairly clean, fairly well formed and reasonably free from growth cracks and damages due to blemishes and bruises that affects the eating quality of fruit. 2 Bananas shall be reasonably free from diseases, and storage disorders & free from dead & living insects. 	Bananas in each sample shall be not more than 10% for off grade by count.

6 PACKAGING AND MARKING

6.1 PACKAGING

6.1.1 Bananas shall be packed in such a way as to protect the produce properly. The materials used inside the package shall be new, clean, and of a quality such as to avoid causing any external or internal damage to the produce. The use of materials, particularly of paper or stamps bearing trade specifications is allowed, provided the printing or labelling has been done with non-toxic ink or glue.

6.1.2 The containers shall meet the quality, hygiene, ventilation and resistance characteristics to ensure suitable handling, transporting and preserving of the bananas. Packages shall be free of all foreign matter and smell.

6.2 MARKING

6.2.1 Each package shall bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from outside (either printed on the package itself or on a label secured to the fastening).

- a) Name of commodity;
- b) Grade (quality);
- c) Name and address of the purchaser or trader (including the country of origin);
- d) Batch or code number;
- e) Date of packaging; and
- f) Instructions for storage.

6.2.2 General guidelines for marking and labelling as given in SLS 467 shall be followed.

7 METHOD OF TEST

7.1 Bananas shall be observed visually for the requirements prescribed in **5.3.1**.

ANNEX A COMPLIANCE OF A LOT

The sampling scheme given in this appendix should be applied where compliance of a lot to the requirements of this standard is to be assessed based on statistical sampling and inspection.

A.1 LOT

A stated quantity of goods of same quality grade in bulk form or packages of same weight and presented for inspection.

A.2 SCALE OF SAMPLING

A.2.1 In case of goods in packaged form the number of packages to be selected from the lot shall be in accordance with **4.2.1** of **ISO 874**.

A.2.2 In case of goods in bulk form, samples shall be drawn from the lot in accordance with **4.2.2** of **ISO 874**.

A.2.3 Preparation of bulk sample or reduced sample.

A.2.3.1 In case of goods in packaged form equal quantity of goods shall be taken from top, middle and bottom layers of each package selected as in **A.2.1** and mix them together to form a bulk sample. Then the bulk sample shall be reduced to the laboratory sample of the size given in Table 3 of **ISO 874**.

A.2.3.2 In case of goods in bulk form the reduced sample shall be prepared in accordance with **4.3** of **ISO 874**.

A.3 NUMBER OF TESTS

A.3.1 Each package selected as in **A.2.1** shall be inspected for packaging and marking requirements.

A.3.2 The sample prepared as in **A.2.3.1** or **A.2.3.2** shall be visually examined for requirements given in **5.3.1**.

A.4 CRITERIA FOR CONFORMITY

A lot shall be declared as conforming to the requirements of this specification if the following conditions are satisfied :

A.4.1 Each package inspected as in **A.3.1** satisfies the relevant requirements.

A.4.2 The test results on each quality parameters when examine as in **A.3.2** shall satisfy the relevant requirements given **5.3.1**.

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SRI LANKA STANDARDS INSTITUTION

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All members of the Technical and Sectoral Committees render their services in an honorary capacity. In this process the Institution endeavours to ensure adequate representation of all view points.

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Further particulars of the terms and conditions of the permit may be obtained from the Sri Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.

